Open Peer Review on Qeios

Aztreonam

National Cancer Institute

Source

National Cancer Institute. Aztreonam. NCI Thesaurus. Code C28845.

A monocyclic beta-lactam antibiotic originally isolated from Chromobacterium violaceum with bactericidal activity. Aztreonam preferentially binds to and inactivates penicillin-binding protein-3 (PBP-3), which is involved in bacterial cell wall synthesis, thereby inhibiting bacterial cell wall integrity and leading to cell lysis and death. This agent differs from other beta-lactam antibiotics because it is resistant to beta-lactamase hydrolysis, and it is usually used to treat infections caused by gram-negative aerobic microorganisms.